

REMARKS

The above amendments to the above-captioned application along with the following remarks are being submitted as a full and complete response to the Office Action dated November 30, 2006. In view of the above amendments and the following remarks, the Examiner is respectfully requested to give due reconsideration to this application, to indicate the allowability of the claims, and to pass this case to issue.

Status of the Claims

As outlined above, claims 2-5, 7-15, 17 and 35 stand for consideration in this application, wherein claims 2, 7, 17 and 35 are being amended to correct formal errors and to more particularly point out and distinctly claim the subject invention. Claims 18-34 stand withdrawn from consideration in this application.

All amendments to the application are fully supported therein, including Figs. 13 and 52-57 and corresponding descriptions in the specification. Applicants hereby submit that no new matter is being introduced into the application through the submission of this response.

Formal Rejections

Claim 2 was rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the Examiner asserted that the claim language was difficult to comprehend, especially when read against the other independent claims.

Claim 2 is being amended so as to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Accordingly, withdrawal of this rejection is respectfully requested.

Prior Art Rejections

35 U.S.C. §103(a) rejection

Claims 2-5, 7-15, 17 and 35 were rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over George et al. (U.S. Pat. 5,774,669) in view of Kracht (U.S. Pat. No. 6,377,987). This rejection is respectfully traversed for the reasons set forth below.

According to the Manual of Patent Examining Procedure (M.P.E.P. §2143),

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the

reference or to combine reference teachings. Second there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both not be found in the prior art, not in the applicant's disclosure.

Furthermore, referring to *In re Fulton*, M.P.E.P. §2143. 01 (I) sets forth as follows:

The court emphasized that the proper inquiry is "whether there is something in the prior art as a whole to suggest the desirability, and thus obviousness, of course, of making the combination," not whether there is something in the prior art as a whole to suggest that the combination is the most desirable combination available.

Furthermore, referring to *In re Mills*, M.P.E.P. §2143. 01 (III) sets forth as follows:

The mere fact that reference can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.

Claim 2

Claim 2 as amended recites that a method of automatically recognizing a network configuration, for automatically recognizing a device configuration on a network system having a network node including at least one or more intelligent network devices each implementing an SNMP agent and a management information base, comprises: a first step of sending an ICMP echo request from an administrator terminal to individual network devices in the network node, and detecting existence and non-existence of network devices on the basis of responses therefrom, the administrator terminal implementing an SNMP manager; a second step of creating plural SNMP messages, each of the SNMP messages inquiring whether or not the network devices support management information base included in each SNMP message, sending the plural SNMP messages one by one to the SNMP agents in the detected individual network devices, and detecting the types of the network devices in the network node based on information of success and failure of sending and receiving the plural SNMP messages and based on combinations of information stored in management information bases included in the received SNMP messages, wherein the combination of information stored in management information bases included in the received SNMP messages indicates the types of the individual network devices and roles of the individual network devices in the network node; a third step of acquiring a set of physical addresses of network devices connected to ports of a network device from the management information base of the network device, the network device being a type of device to have a bridge function; a fourth step of acquiring information as to physical-IP address correspondence

from the management information base of a network device having a routing function; and a fifth step of recognizing at an IP level the network devices connected to each of the ports of the network device having a bridge function, based on the acquired information as to physical-IP address correspondence.

Figs. 13 and 52-57 illustrate exemplary processes in the method recited in claim 2. Each of the plural SNMP messages created inquires whether or not the network devices such as a router, a bridge, switching Hub, a printer, and a terminal support management information bases included in each SNMP message. The SNMP messages includes, for example, but not limited to, IP MIB, Bridge MIB, repeater MIB and printer MIB. For example, an SNMP message including IP MIB is sent to the SNMP agent. The SNMP agent checks if the network devices support the IP MIB and returns a result of the check to the administrator terminal. Then, an SNMP message including Bridge MIB is sent to the SNMP agent. The SNMP agent checks if the network devices support the Bridge MIS and returns a result of the check to the administrator terminal. This process continues until all MIBs are checked. Finally, the types of network devices are determined based on the combinations of these results of the returned MIB.

The type of network device can be specified by transmitting an SNMP message regarding an MIB, which the operator wants to check first. As shown in Fig. 13, for example, the ipForwarding object value in the ip group and implementation patterns of a Bridge MIB, repeater MIB, and printer MIB varies according to the combination of device types (page 44, lines 19-23 of the specification). For example, to check if a printer is included among the detected network devices, a SNMP message regarding printer MIB is sent. If the SNMP message is successfully sent and received, it is determined that the printer is included and support MIB. To check if a network device has an IP forwarding function, an SNMP Get-Request message is sent. If the SNMP message is successfully sent and received, it is determined that the network device has an IP forwarding function as a role of the network device in the network nodes. (page 84, lines 4-24 of the specification)

In contrast, George merely states that other nodes on the network are discovered by “asking particular nodes on the network for neighbor lists, called routing tables, and then repeating the inquiry to each neighbor of a former neighbor” (col. 3, lines 46-54, col. 4 and lines 29-30). Also, George merely shows that the distributed hierarchical network manager system includes a data base module and a rule-based intelligent processor. George does not show or suggest either explicitly or implicitly creating plural SNMP messages, each of the SNMP messages inquiring whether or not the network devices support a management

information base included in each of the SNMP messages, sending the plural SNMP messages one by one to the SNMP agents in the detected individual network devices, and detecting the types of the network devices in the network node based on information of success and failure of sending and receiving the plural SNMP messages and based on combinations of information stored in management information bases included in the received SNMP messages, wherein the combination of the information stored in the management information bases included in the received SNMP messages indicates the types of the individual network devices and roles of the individual network devices in the network node.

The secondary reference of Kracht shows contacting a SNMP agent in the particular devices to receive a device type value and determining a type of a device comparing identification information from the SNMP agent in the device to a list of known device data. However, Kracht does not show or suggest either explicitly or implicitly determining the types of network devices and roles of network devices in the network node based on the combination of information stored in management information bases included in the received SNMP messages. Therefore, the secondary reference of Kracht fails to provide any disclosure, teaching or suggestion that make up for the deficiencies in George.

In sum, there is no suggestion or motivation in either George or Kracht to combine these features explicitly or implicitly, or in the knowledge generally available to one of ordinary skill in the art at the time the invention was made to embody all the features of the invention as recited in claim 2. Accordingly, claim 2 is not obvious in view of all the prior art recited.

Claims 17, 35

Claims 17 and 35 have the substantially same features as those of claim 2, at least with respect to. As such, the arguments set forth above are equally applicable here. Claim 2 being allowable, claims 17 and 35 must also be allowable.

Claims 3-5, 7-15

As to dependent claims 3-5 and 7-15, the arguments set forth above with respect to independent claim 2 are equally applicable here. The corresponding base claim being allowable, claims 3-5 and 7-15 must also be allowable.

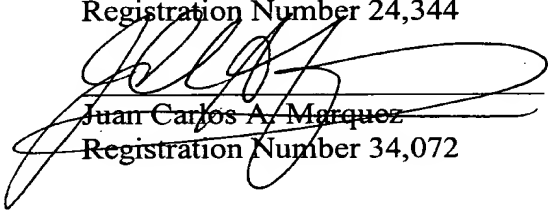
Conclusion

In view of all the above, Applicants respectfully submit that certain clear and distinct differences as discussed exist between the present invention as now claimed and the prior art references upon which the rejections in the Office Action rely. These differences are more than sufficient that the present invention as now claimed would not have been anticipated nor rendered obvious given the prior art. Rather, the present invention as a whole is distinguishable, and thereby allowable over the prior art.

Favorable reconsideration of this application as amended is respectfully solicited. Should there be any outstanding issues requiring discussion that would further the prosecution and allowance of the above-captioned application, the Examiner is invited to contact the Applicants' undersigned representative at the address and phone number indicated below.

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